

HEALTHCARE COST AND UTILIZATION PROJECT — HCUP
A FEDERAL-STATE-INDUSTRY PARTNERSHIP IN HEALTH DATA
Sponsored by the Agency for Healthcare Research and Quality

OVERVIEW OF
THE HCUP NATIONWIDE INPATIENT SAMPLE (NIS) RELEASE 1, 1988-1992

**These pages provide only an introductory overview of the NIS package.
Full documentation is provided on the NIS Documentation CD-ROM.**

- The NIS package has been updated for distribution through the HCUP Central Distributor.
- The NIS product is now stored on 6 instead of 26 CD-ROMs.
- Updated product information is available in the section labeled "NIS Product Update."
- Original product information is available in the section labeled "NIS 1988-1992 Original Overview and General Information."

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NIS 1988-1992 ORIGINAL OVERVIEW AND GENERAL INFORMATION

Pages 1–6 and 9-13 of the original document are not included because the information was out of date. The NIS Product Update section includes the current information.

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HCUP NATIONWIDE INPATIENT SAMPLE (NIS) SUMMARY OF DATA USE LIMITATIONS

***** REMINDER *****

All users of the NIS must sign a data use agreement. The signed data use agreements must be kept on file by the organization that purchased the NIS data. †

Authorized users of HCUP data agree to the following limitations: ‡

- Cannot use the data for any purpose other than research or aggregate statistical reporting.
- Cannot re-release any data to unauthorized users.
- Cannot identify or attempt to identify any individual.
- Cannot link HCUP data to data from another source that identifies individuals.
- Cannot report information that could identify individual establishments.
- Cannot use the data concerning individual establishments for commercial or competitive purposes involving those establishments.
- Cannot use the data to determine rights, benefits, or privileges of individual establishments.
- Cannot identify or attempt to identify any establishment when its identity has been concealed on the database.
- Cannot contact establishments included in the data.
- Cannot attribute to data contributors any conclusions drawn from the data.
- Must acknowledge the "Healthcare Cost and Utilization Project, (HCUP)", as described in the Data Use Agreement, in reports.

Any violation of the limitations in the data use agreement is punishable under Federal law by a fine of up to \$10,000 and up to 5 years in prison. Violations may also be subject to penalties under State statutes.

† A copy of the Data Use Agreement is included on the NIS Documentation CD-ROM and is included at the end of this section.

‡ Specific provisions are detailed in the Data Use Agreement for Nationwide Inpatient Sample.

HCUP CONTACT INFORMATION

Please submit signed data use agreements to HCUP at:

Agency for Healthcare Research and Quality
Healthcare Cost and Utilization Project (HCUP)
2101 E. Jefferson Street, Suite 605
Rockville, MD 20852

Phone: (301) 594-3075
Fax: (301) 594-2166

We would like to receive your feedback on the HCUP NIS data products.

Our E-mail address for user feedback and technical support is:

hcup@ahrq.gov

HEALTHCARE COST AND UTILIZATION PROJECT — HCUP
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HCUP NATIONWIDE INPATIENT SAMPLE (NIS) PRODUCT UPDATE

This section includes the following information:

- Description of the updated NIS product structure,
- Correction to the 1993 Nationwide Inpatient Sample, Release 2,
- Correction to the 1988-1992 SPSS Load Programs,
- Warning about the SPSS Label Programs Provided with the 1988-1997 NIS, and
- Overview of the other HCUP products.

Updated NIS Product Structure

The Nationwide Inpatient Sample (NIS) product has been updated for distribution through the HCUP Central Distributor. The NIS product was originally distributed on many CD-ROMs. The information on the original CD-ROMs has been compressed and stored in self-extracting PKZIP files (*.exe) as described in the table below. An introduction to the NIS data files is provided in this binder in the section labeled “NIS 1988-1992 Original Overview and General Information.” Full documentation is provided on the NIS Documentation CD-ROM.

NIS Release	NIS Year	Internal CD_ROM Volume Label	CD #	Self-Extracting PKZIP Files
NIS, Release 1, 1988-1992 (Originally on 26 CDs, now stored on 6 CDs)	1988	NIS1988_DATA	1	NIS1988_QTR1.exe NIS1988_QTR2.exe NIS1988_QTR3.exe NIS1988_QTR4.exe NIS1988_SAMPLE.exe
	1989	NIS1989_DATA	2	NIS1989_QTR1.exe NIS1989_QTR2.exe NIS1989_QTR3.exe NIS1989_QTR4.exe NIS1989_SAMPLE.exe
	1990	NIS1990_DATA	3	NIS1990_QTR1.exe NIS1990_QTR2.exe NIS1990_QTR3.exe NIS1990_QTR4.exe NIS1990_SAMPLE.exe
	1991	NIS1991_DATA	4	NIS1991_QTR1.exe NIS1991_QTR2.exe NIS1991_QTR3.exe NIS1991_QTR4.exe NIS1991_SAMPLE.exe
	1992	NIS1992_DATA	5	NIS1992_QTR1.exe NIS1992_QTR2.exe NIS1992_QTR3.exe NIS1992_QTR4.exe NIS1992_SAMPLE.exe
	1988-92	NIS1988-1992_DOC	6	NIS1988-92_DOCS.exe

NIS Release	NIS Year	Internal CD_ROM Volume Label	CD #	Self-Extracting PKZIP Files
NIS, Release 2, 1993 (Originally on 6 CDs, now stored on 2 CDs)	1993	NIS1993_DATA	1	NIS1993_CD#1.exe NIS1993_CD#2.exe NIS1993_CD#3.exe NIS1993_CD#4.exe NIS1993_CD#5.exe
	1993	NIS1993_DOC	2	NIS1993_CD#6.exe
NIS, Release 3, 1994 (Originally on 6 CDs, now stored on 2 CDs)	1994	NIS1994_DATA	1	NIS1994_CD#1.exe NIS1994_CD#2.exe NIS1994_CD#3.exe NIS1994_CD#4.exe NIS1994_CD#5.exe
	1994	NIS1994_DOC	2	NIS1994_CD#6.exe
NIS, Release 4, 1995 (Originally on 6 CDs, now stored on 2 CDs)	1995	NIS1995_DATA	1	NIS1995_CD#1.exe NIS1995_CD#2.exe NIS1995_CD#3.exe NIS1995_CD#4.exe NIS1995_CD#5.exe
	1995	NIS1995_DOC	2	NIS1995_CD#6.exe
NIS, Release 5, 1996 (Originally on 6 CDs, now stored on 2 CDs)	1996	NIS1996_DATA	1	NIS1996_CD#1.exe NIS1996_CD#2.exe NIS1996_CD#3.exe NIS1996_CD#4.exe NIS1996_CD#5.exe
	1996	NIS1996_DOC	2	NIS1996_CD#6.exe
NIS, Release 6, 1997 (Originally on 6 CDs, now stored on 2 CDs)	1997	NIS1997_DATA	1	NIS1997_CD#1.exe NIS1997_CD#2.exe NIS1997_CD#3.exe NIS1997_CD#4.exe NIS1997_CD#5.exe
	1997	NIS1997_DOC	2	NIS1997_CD#6.exe

In order to load NIS data onto your PC, you will need at least 500 megabytes of space available for the compressed files and at least 3.1 gigabytes of space available for the decompressed files. To decompress the self-extracting PKZIP compressed files (*.exe), you should follow these steps:

1. Create a directory for the NIS on your hard drive.
2. Copy the self-extracting data files from the NIS Data CD-ROM into the new directory.
3. Unzip each file by running the corresponding *.exe file.
 - Type the file name within DOS or click on the name within Windows Explorer.
 - Edit the name of the "Unzip To Folder" in the WinZip Self-Extractor dialog to select the desired destination directory for the extracted file.
 - Click on the "Unzip" button.

The ASCII data files will then be uncompressed into this directory. After the files are uncompressed, the *.exe files can be deleted.

Correction to the 1993 Nationwide Inpatient Sample

A programming error caused a problem with some of the diagnosis codes for the discharge abstracts from New Jersey hospitals in the 1993 Nationwide Inpatient Sample (NIS), Release 2. Some of the hospitals' data have three- or four-digit diagnoses with trailing zeros that render otherwise valid codes invalid. A SAS program to fix the principal diagnosis on the NIS Core A file and the complete diagnosis vector on the diagnosis file (DX) is available on the AHRQ Web site <http://www.ahrq.gov/data/hcup/njnifix.htm>.

Correction to the 1988-1992 SPSS Load Programs

Included on the Documentation CD for NIS, Release 1, 1988-1992, are programs to load the ASCII data files into SPSS. These programs have an error in the SPSS code and need the following corrections.

Three changes must be made to the 1988-1992 SPSS syntax files (LOADIP.ASC and LOADWT.ASC) in the SPSS Syntax Editor prior to loading them. Once changed, the two programs correctly load the 1988-1992 NIS data into SPSS.

1. Change the programs' extensions from LOADIP.ASC and LOADWT.ASC to LOADIP.SPS and LOADWT.SPS.
2. Perform a Find and Replace in the SPSS Syntax editor, change all occurrences of "\$SYSMIS" to "SYSMIS".
3. Replace the initial command line in each program from

DATA LIST FILE "*** file name***" FIXED /

To

DATA LIST FILE='Drive:\Path\Directory\Filename.ASC' FIXED /

To save time, you may add the following command line to save the data file at the end of the load programs (right after the recodes.) Saving the data file by doing a (File, Save As) after creating the file doubles the time it takes to create the file.

SAVE OUTFILE='Drive:\Path\Directory\Filename.SAV' /COMPRESSED.

Beginning with the NIS, Release 2, 1993, the SPSS load programs provided on the Documentation CD are correct.

SPSS Label Programs Provided with the 1988-1997 NIS

Included on the Documentation CD for the 1988-1997 NIS is a program (VLABEL) to label the data elements. This program contains errors and should not be used. Value labels in SPSS can be entered into the data interactively via the data editor or entered and contained in pivot tables.

OTHER HCUP PRODUCTS

The AHRQ Home Page on the World Wide Web is a source of information about HCUP databases and aggregate statistics from HCUP.

The address is: <http://www.ahrq.gov/data/hcup/>.

Data

Nationwide Inpatient Sample (NIS) releases are currently available through the HCUP Central Distributor.

HCUP Central Distributor
Social and Scientific Systems, Inc.
Phone: (866) 556-4287 (toll-free)
Fax: (301) 628-3201
E-mail: hcup@s-3.com

An online application is available on the HCUP section of the AHRQ Website at <http://www.ahrq.gov/data/hcup/>.

State Inpatient Databases (SID) are hospital databases from Data Organizations participating in HCUP. The SID contain the universe of the inpatient discharge abstracts in the participating HCUP States, translated into a uniform format to facilitate multi-State comparisons and analyses. Together, the SID encompass about 80 percent of all U.S. community hospital discharges. For more information, visit: <http://www.ahrq.gov/data/hcup/hcupsid.htm> or contact the HCUP Central Distributor (see below).

State Ambulatory Surgery Databases (SASD) are databases from Data Organizations in participating HCUP States, which capture surgeries performed on the same day in which patients are admitted and released. The SASD contain the ambulatory surgery encounter abstracts in participating States, translated into a uniform format to facilitate multi-State comparisons and analyses. All of the databases include abstracts from hospital-affiliated ambulatory surgery sites. Some contain the universe of ambulatory surgery encounter abstracts for that State, including records from both hospital-affiliated and freestanding surgery centers. Composition and completeness of data files may vary from State to State. For more information, visit: <http://www.ahrq.gov/data/hcup/hcupsasd.htm> or contact the HCUP Central Distributor (see below).

Kids' Inpatient Database (KID) is a unique database of hospital inpatient stays for children 18 years of age and younger. The KID was specifically designed to permit researchers to study a broad range of conditions and procedures related to child health issues. KID files for 1997 data are available through the AHRQ-sponsored HCUP Central Distributor (contact information below). For more information, visit: <http://www.ahrq.gov/data/hcup/hcupkid.htm> or contact the HCUP Central Distributor (see below).

HCUP Central Distributor. HCUP databases are available for purchase through the AHRQ-sponsored HCUP Central Distributor. Many of the HCUP State Partners allow the public release of the State Inpatient Databases (SID) and State Ambulatory Surgery Databases (SASD) through

the AHRQ-sponsored HCUP Central Distributor. In addition, the NIS and the KID are released through the HCUP Central Distributor. Information on how to obtain uniformly-formatted HCUP files from States not participating in the HCUP Central Distributor is also available from the HCUP Central Distributor:

HCUP Central Distributor
Social and Scientific Systems, Inc.
Phone: (866) 556-4287 (toll-free)
Fax: (301) 628-3201
E-mail: hcup@s-3.com

HCUPnet

HCUPnet is a Web-based query tool for identifying, tracking, analyzing, and comparing statistics on hospitals at the national, regional, and state level. With HCUPnet you have easy access to national statistics and trends and selected state statistics about hospital stays. HCUPnet guides you step-by-step to obtain the statistics you need. HCUPnet generates statistics using the Nationwide Inpatient Sample (NIS), the Kids' Inpatient Database (KID), and the State Inpatient Databases (SID) for those states that have agreed to participate. HCUPnet can be found at: <http://www.ahrq.gov/data/hcup/hcupnet.htm>.

Tools

AHRQ Quality Indicators (QIs) are clinical performance measures for use with readily available inpatient data. Methods and software for the AHRQ Quality Indicators can be downloaded from <http://www.ahrq.gov/data/hcup/qinext.htm>.

Clinical Classifications Software (CCS), formerly known as the Clinical Classifications for Health Policy Research (CCHPRs), are classification systems that group ICD-9-CM diagnoses and procedures into a limited number of clinically meaningful categories. Methods and software can be downloaded from <http://www.ahrq.gov/data/hcup/ccs.htm>.

Comorbidity Software assigns variables that identify comorbidities in hospital discharge records using ICD-9-CM diagnosis codes (International Classification of Diseases, Ninth Revision, Clinical Modification). Methods and software can be downloaded from <http://www.ahrq.gov/data/hcup/comorbid.htm>.

Publications

HCUP Research Notes report aggregate statistics and detailed analyses using HCUP data. To request copies, contact the AHRQ Publications Clearinghouse at (800) 358-9295 or send a postcard to: AHRQ Publications Clearinghouse, P.O. Box 8547, Silver Spring, MD 20907 or visit the AHRQ Home Page.

For information on HCUP products:

Email: hcup@ahrq.gov
Phone: (301) 594-3075
Fax: (301) 594-2166

DATA USE AGREEMENT FOR THE NATIONWIDE INPATIENT SAMPLE

The most current Data Use Agreement for the Nationwide Inpatient Sample (NIS) is available on the HCUP User Support Website (www.hcup-us.ahrq.gov) under NIS Database Documentation.

OVERVIEW OF DATA PRODUCTS FROM THE NATIONWIDE INPATIENT SAMPLE (NIS)

The Agency for Health Care Policy and Research is proud to bring you the Healthcare Cost and Utilization Project (HCUP-3) Nationwide Inpatient Sample (NIS), Release 1, for 1988-1992.

The HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, includes:

- 20% sample of U.S. community hospitals from 11 states
- 100% of discharges
- 1988-1992

NIS Subsamples include:

- 20% sample of U.S. community hospitals from 11 states
- 10% sample of discharges
- 1988-1992

NIS data are available in 3 media/format options:

- on CD-ROM, data in ASCII format
- on magnetic tape, data in EBCDIC format
- on magnetic tape, data in SAS transport format

NIS Documentation is available:

- in portable document format (*.pdf) for CD-ROM users
- in printed copy for tape users

NIS Tools, developed to assist SAS and SPSS users, are available in ASCII text files:

- on CD-ROM for CD-ROM users
- on diskette for tape users

Table 1 summarizes the number of hospitals and number of inpatient stays in NIS data.

Table 1: HCUP-3 NIS, Release 1, Contents

Calendar year	Number of Hospitals	Number of Inpatient Stays		
		Full sample	Subsample 1	Subsample 2
1988	759	5,265,756	526,576	526,575
1989	882	6,110,064	611,007	611,006
1990	871	6,268,515	626,852	626,851
1991	859	6,156,188	615,620	615,619
1992	856	6,195,744	619,574	619,574

NIS DATA ON CD-ROM

Available Only in 5-year, 26-CD Sets
From the National Technical Information Service, (703) 487-4650

NIS data on CD-ROM (ASCII format) with NIS Documentation and Tools -- 26-CD Set
NIS data on CD-ROM -- 4 disks per year, one quarter per disk; total 20 disks HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1988 1988, Quarters 1-4, Inpatient Stay files 1988 Hospital Weights file (on Quarter 1 disk) HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1989 1989, Quarters 1-4, Inpatient Stay files 1989 Hospital Weights file (on Quarter 1 disk) HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1990 1990, Quarters 1-4, Inpatient Stay files 1990 Hospital Weights file (on Quarter 1 disk) HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1991 1991, Quarters 1-4, Inpatient Stay files 1991 Hospital Weights file (on Quarter 1 disk) HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1992 1992, Quarters 1-4, Inpatient Stay files 1992 Hospital Weights file (on Quarter 1 disk)
NIS subsample data on CD-ROM 1 disk per year; each disk contains two 10% Subsamples; total 5 disks HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, Subsamples, 1988 1988, Subsample files x 2 1988 Hospital Weights file HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, Subsamples, 1989 1989, Subsample files x 2 1989 Hospital Weights file HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, Subsamples, 1990 1990, Subsample files x 2 1990 Hospital Weights file HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, Subsamples, 1991 1991, Subsample files x 2 1991 Hospital Weights file HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, Subsamples, 1992 1992, Subsample files x 2 1992 Hospital Weights file
NIS Documentation and NIS Tools on CD-ROM -- 1 disk Note: NIS documentation includes summary statistics from the full NIS for each data element. Summary statistics for the subsample files are not available.

NIS DATA ON MAGNETIC TAPE -- EBCDIC format

Available for Individual Years
From the National Technical Information Service, (703) 487-4650

NIS data on magnetic tape (EBCDIC format) with Documentation
HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1988 1988, Inpatient Stay file 1988 Hospital Weights file with NIS Documentation and NIS Tools
HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1989 1989, Inpatient Stay file 1989 Hospital Weights file with NIS Documentation and NIS Tools
HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1990 1990, Inpatient Stay file 1990 Hospital Weights file with NIS Documentation and NIS Tools
HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1991 1991, Inpatient Stay file 1991 Hospital Weights file with NIS Documentation and NIS Tools
HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1992 1992, Inpatient Stay file 1992 Hospital Weights file with NIS Documentation and NIS Tools

NIS DATA ON MAGNETIC TAPE -- SAS transport format

Available for Individual Years
From the National Technical Information Service, (703) 487-4650

NIS data on magnetic tape (SAS transport format for SAS users) with Documentation
HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1988 1988, Inpatient Stay file 1988 Hospital Weights file with NIS Documentation and NIS Tools
HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1989 1989, Inpatient Stay file 1989 Hospital Weights file with NIS Documentation and NIS Tools
HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1990 1990, Inpatient Stay file 1990 Hospital Weights file with NIS Documentation and NIS Tools
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HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1992 1992, Inpatient Stay file 1992 Hospital Weights file with NIS Documentation and NIS Tools

NIS DOCUMENTATION and NIS TOOLS

Available Alone or Accompanying Magnetic Tape Products
From the National Technical Information Service, (703) 487-4650

NIS Documentation & NIS Tools

HCUP-3 Nationwide Inpatient Sample (NIS), Release 1, 1988-1992

NIS Documentation (printed):

- ▶ General Information
 - Summary of Data Use Limitations
 - Overview of Data Products
 - General Information about HCUP-3
 - General Information about the Nationwide Inpatient Sample
- ▶ Technical Supplements
 - Data Use Agreement for the Nationwide Inpatient Sample
 - Quality Control in HCUP-3 Data Processing
 - Mapping Source-Specific Hospital Identifiers to AHA Hospital Identifiers
 - Sources of HCUP-3 Data
 - Design of the HCUP-3 Nationwide Inpatient Sample, Release 1
- ▶ HCUP-3 NIS, Release 1, Inpatient Stay files, 1988-1992
 - Overview and File Composition
 - Record Layouts (for SAS, EBCDIC, and ASCII formats)
 - Code book, includes for each data element:
 - Coding and statistics
 - HCUP-3 coding notes
 - Data Control Table
 - Data Quality Table
 - Diagnosis and procedure frequencies classified by DRG, MDC, and Clinical Classifications for Health Policy Research
- ▶ HCUP-3 NIS, Release 1, Hospital Weights files, 1988-1992
 - Overview and File Composition
 - Record Layouts (for SAS, EBCDIC, and ASCII formats)
 - Code book, includes for each data element:
 - Coding and statistics
 - HCUP-3 coding notes
- ▶ File specifications (ASCII, EBCDIC, SAS transport)

NIS Tools (ASCII text files on diskette):

- ▶ SAS source code to load EBCDIC/ASCII data into SAS format
- ▶ SAS source code to create format library of value labels
- ▶ SPSS source code to load EBCDIC/ASCII data into SPSS format
- ▶ SPSS source code to create value labels
- ▶ Record layouts for:
 - Inpatient Stay file (for SAS, EBCDIC, and ASCII formats)
 - Hospital Weights file (for SAS, EBCDIC, and ASCII formats)
- ▶ Labels for Clinical Classifications for Health Policy Research
- ▶ Labels for Diagnosis Related Groups

GENERAL INFORMATION ABOUT HCUP-3

The Healthcare Cost and Utilization Project, 1988-1994 (HCUP-3) is a federal-state-industry partnership in health care data. HCUP's objectives are to obtain data from statewide information sources, primarily state governments and hospital associations; design and develop a multistate health care database to be used for health services research and health policy analysis; and release data to a broad set of public and private users.

The HCUP-3 Project has developed two major inpatient databases.

THE STATE INPATIENT DATABASE (SID)

The SID provides uniform data on all inpatient stays in all community hospitals from states with statewide hospital inpatient data systems selected by AHCPR. This database contains common inpatient data elements, variables derived from sensitive data elements, and state-specific variables. Each state database is returned to the respective data source in the uniform HCUP-3 format. Dissemination of SID data is controlled by the state data sources. For more information about the SID, contact:

Agency for Health Care Policy and Research
2101 East Jefferson Street, Suite 500
Rockville, Maryland 20852
phone: (301) 594-1410
fax: (301) 594-2314
Internet: hcupSID@cghsir.ahcpr.gov

THE NATIONWIDE INPATIENT SAMPLE (NIS)

The NIS contains inpatient data in a uniform format and is designed to approximate a 20 percent sample of U.S. hospitals. The NIS will exclude data elements that could result, directly or indirectly, in the identification of individuals. The NIS is available to researchers who sign a data use agreement restricting the use of the data to research purposes only. The NIS was designed to support the development of national and subnational estimates for costs and utilization of inpatient hospital services.

The NIS will support health policy research on a variety of topics, including:

- the use and cost of hospital services,
- hospital financial distress,
- medical practice variation,
- the effectiveness of medical treatments,
- health care cost inflation,
- the diffusion of medical technology,
- the impact of proposed cost-containment,
- the utilization of health services by special populations, and
- health care reform.

The HCUP-3 Project is directed by the Agency for Health Care Policy and Research (AHCPR). Development of the HCUP-3 databases was accomplished under contract with The MEDSTAT Group and its subcontractors, Abt Associates and the National Association of Health Data Organizations (NAHDO). Post-development work, including preparation of the data files for dissemination, was accomplished under contract with Social and Scientific Systems, Inc.

GENERAL INFORMATION ABOUT THE NATIONWIDE INPATIENT SAMPLE

OVERVIEW

The Nationwide Inpatient Sample (NIS) is comprised of selected states that have agreed to provide the HCUP-3 Project with all-payer data on hospital inpatient stays. NIS, Release 1 is drawn from 11 states and is available in five separate yearly files: 1988, 1989, 1990, 1991, and 1992.

The NIS contains all discharges from hospitals sampled from these states. Each year of the NIS contains 5-6 million records, and 750 to 900 hospitals. Future releases of the NIS will include additional states and years. Table 2 lists the states and years of data in NIS, Release 1.

Table 2: States in the Frame for NIS, Release 1

State	Calendar Years of Data				
	1988	1989	1990	1991	1992
Arizona		X	X	X	X
California	X	X	X	X	X
Colorado	X	X	X	X	X
Florida	X	X	X	X	X
Illinois	X	X	X	X	X
Iowa	X	X	X	X	X
Massachusetts	X	X	X	X	X
New Jersey	X	X	X	X	X
Pennsylvania		X	X	X	X
Washington	X	X	X	X	X
Wisconsin		X	X	X	X

The NIS contains patient-level clinical and resource-use information included in a typical discharge abstract. The NIS can be linked directly to hospital-level data from the American Hospital Association (AHA) Annual Survey of Hospitals, and to county-level data from the Health Resources and Services Administration, Bureau of Health Professions' Area Resource File (ARF).

The NIS is designed to approximate a 20 percent sample of U.S. community hospitals as defined by the AHA. The AHA defines community hospitals as "all nonfederal, short-term, general and other specialty hospitals, excluding hospital units of institutions." Not included among community hospitals are long-term hospitals, psychiatric hospitals, and alcoholism and chemical dependency facilities. Included among community hospitals are such specialty hospitals as obstetrics-gynecology, ear-nose-throat, short-term rehabilitation, orthopedic, and pediatric.

This universe of U.S. community hospitals is divided into strata using five hospital characteristics:

- ownership/control,
- bedsize,
- teaching status,
- urban/rural location, and
- U.S. region.

The NIS is a stratified probability sample of hospitals in the frame, with sampling probabilities proportional to the number of U.S. community hospitals in each stratum. The frame is limited by the availability of inpatient data from the data sources. To facilitate the production of national estimates, both hospital and discharge weights are provided, along with information necessary to calculate the variance of estimates.

FILE STRUCTURE

There are two different types of NIS files for each year:

- Inpatient Stay files, and
- Hospital Weights files.

NIS Inpatient Stay Files

The NIS Inpatient Stay files contain all of the inpatient records for the sampled hospitals. The unit of observation is the *inpatient stay*.

The NIS Inpatient Stay files contain data elements for:

- linkage,
- patient demographics,
- clinical information, and
- payment information.

Data elements that could directly or indirectly identify individual patients and physicians are excluded from the file. The identities of institutions are available only for data sources that already make that information public or have agreed to its release. (In NIS, Release 1, all data sources have agreed to its release.)

There are three NIS Inpatient Stay files:

- 100% of all inpatient records from NIS hospitals, and
- two non-overlapping 10% subsamples of inpatient records from all NIS hospitals.

Full NIS Files. These NIS files contain 100% of all inpatient records for all community hospitals sampled for the NIS. There was no attempt to delete records from special units (e.g., psychiatric, rehabilitation, long term care) in these community hospitals.

Ten Percent Subsample Files. The 10% Subsamples were drawn by selecting every tenth record from the 100% files beginning with two different starting points randomly selected between 1 and 10. The different starting points guarantee that the Subsamples will not overlap. The two 10% Subsamples can be combined to form a single 20% Subsample of discharges from the NIS.

Discharge weights can be multiplied by 10 for use with the Subsample files. Hospital weights do not require adjustment because every NIS hospital appears in each 10% Subsample. For detailed information about use of discharge and hospital weights, see Technical Supplement 5: *Design of the HCUP-3 Nationwide Inpatient Sample*.

Data Elements in the Inpatient Files. Not all data elements are available from all states. Table 3 lists the availability of data elements in the NIS, by state, for 1992.

Table 3: Availability of Data Elements in the HCUP-3 Nationwide Inpatient Sample, by State (1992)

Variable Name	Description	State										
		AZ	CA	CO	FL	IL	IA	MA	NJ	PA	WA	WI
Linkage Elements												
HOSPID	HCUP-3 hospital number	X	X	X	X	X	X	X	X	X	X	X
PROCESS	Processing number assigned for tracking records throughout data processing	X	X	X	X	X	X	X	X	X	X	X
SEQ	Unique sequence number indicates the order in which the data file is sorted	X	X	X	X	X	X	X	X	X	X	X
YEAR	Discharge year (calendar)	X	X	X	X	X	X	X	X	X	X	X
Physician Identifiers												
MDID_S	Synthetic attending physician number	X	-	X	X	-	-	-	X	X	X	X
SURGID_S	Synthetic primary surgeon number	-	-	X	X	-	-	-	X	X	X	X
Data Source Identifiers												
DSHOSPID	Hospital number as received from the data source	X	X	X	X	X	X	X	X	X	X	X

**Table 3: Availability of Data Elements in the
HCUP-3 Nationwide Inpatient Sample, by State (1992)**

Variable Name	Description	State										
		AZ	CA	CO	FL	IL	IA	MA	NJ	PA	WA	WI
DSNUM	Data source number	X	X	X	X	X	X	X	X	X	X	X
DSTYPE	Data source type indicates state data organization, hospital association, consortium, and other	X	X	X	X	X	X	X	X	X	X	X
Area Identifiers												
HOSPST	State postal code for hospital	X	X	X	X	X	X	X	X	X	X	X
HOSPSTCO	Modified FIPS state/county code for hospital	X	X	X	X	X	X	X	X	X	X	X
ZIPINC4	Median income for patient's zip code (in 4 categories)	X	X	X	X	X	X	X	X	X	X	X
ZIPINC8	Median income for patient's zip code (in 8 categories)	X	X	X	X	X	-	X	X	X	X	X
Patient Demographics												
AGE	Age in years at admission	X	X	X	X	X	X	X	X	X	X	X
AGEDAY	Age in days (coded only when the age in years is less than 1)	X	X	X	X	X	X	X	X	X	X	X
RACE	Race includes white, black, Hispanic, Asian, Pacific Islander, and Native American	-	X	-	X	-	X	X	X	-	-	X
SEX	Sex	X	X	X	X	X	X	X	X	X	X	X
Clinical Information												
DX1-DXnn	Principal and secondary diagnoses	5	15	5	10	5	5	9	9	5	7	6
DXV1-DXVnn	Validity flag for diagnoses — indicates valid, invalid, or missing diagnosis	5	15	5	10	5	5	9	9	5	7	6
NDX	Number of diagnoses coded on the original record	X	X	X	X	X	X	X	X	X	X	X
DSNDX	Maximum number of diagnosis codes available from this data source	X	X	X	X	X	X	X	X	X	X	X
PR1-PRnn	Principal and secondary procedures	3	15	5	10	3	3	10	8	3	3	3

**Table 3: Availability of Data Elements in the
HCUP-3 Nationwide Inpatient Sample, by State (1992)**

Variable Name	Description	State										
		AZ	CA	CO	FL	IL	IA	MA	NJ	PA	WA	WI
PRV1- PRVnn	Validity flag for procedures — indicates valid, invalid, or missing procedure	3	15	5	10	3	3	10	8	3	3	3
NPR	Number of procedures coded on the original record	X	X	X	X	X	X	X	X	X	X	X
DSNPR	Maximum number of procedure codes available from this data source	X	X	X	X	X	X	X	X	X	X	X
DXSYS	Diagnosis coding system, usually ICD-9-CM	X	X	X	X	X	X	X	X	X	X	X
PRSYS	Procedure coding system, usually ICD-9-CM	X	X	X	X	X	X	X	X	X	X	X
DRG	DRG in use on discharge date	X	X	X	X	X	X	X	X	X	X	X
MDC	MDC in use on discharge date	X	X	X	X	X	X	X	X	X	X	X
DRGVER	Grouper version in use on discharge date	X	X	X	X	X	X	X	X	X	X	X
DRG10	DRG Version 10 (October 1992)	X	X	X	X	X	X	X	X	X	X	X
MDC10	MDC Version 10 (October 1992)	X	X	X	X	X	X	X	X	X	X	X
DCCHPR1	Clinical Classification for Health Policy Research (CCHPR) for principal diagnosis	X	X	X	X	X	X	X	X	X	X	X
PCCHPR1	CCHPR for principal procedure	X	X	X	X	X	X	X	X	X	X	X
NEOMAT	Neonatal/maternal flag	X	X	X	X	X	X	X	X	X	X	X
Days and Dates												
ADAYWK	Admission day of week	X	X	X	X	X	X	X	X	X	X	X
AMONTH	Admission month	X	X	X	X	X	X	X	X	X	X	X
DQTR	Discharge quarter	X	X	X	X	X	X	X	X	X	X	X
LOS	Length of stay, edited	X	X	X	X	X	X	X	X	X	X	X
LOS_X	Length of stay, unedited	X	X	X	X	X	X	X	X	X	X	X
PRDAY1	Days from admission of principal procedure	-	X	X	X	-	-	X	X	X	-	X

**Table 3: Availability of Data Elements in the
HCUP-3 Nationwide Inpatient Sample, by State (1992)**

Variable Name	Description	State											
		AZ	CA	CO	FL	IL	IA	MA	NJ	PA	WA	WI	
Admission/Discharge Status													
ASOURCE	Admission source	X	X	-	X	X	-	X	X	X	X	X	
ATYPE	Admission type	X	X	-	X	X	-	X	X	X	X	X	
DIED	Indicates in-hospital death	X	X	X	X	X	X	X	X	X	X	X	
DISP	Disposition of patient (discharge status)	X	X	X	X	X	X	X	X	X	X	X	
Payment Information													
PAY1	Expected primary payer	X	X	X	X	X	X	X	X	X	X	X	
PAY1_N	Expected primary payer (more detailed than PAY1)	X	X	X	X	X	X	X	X	X	X	X	
PAY2	Expected secondary payer	-	-	-	-	X	-	X	X	-	X	X	
PAY2_N	Expected secondary payer (more detailed than PAY2)	-	-	-	-	X	-	X	X	-	X	X	
TOTCHG	Total charges, edited	X	X	X	X	X	X	X	X	X	X	X	
TOTCHG_X	Total charges, unedited	X	X	X	X	X	X	X	X	X	X	X	

Key:

- Not available from this state
X Available from this state
nn Number of occurrences of this data element

NIS Hospital Weights Files

The NIS Hospital Weights files contain one observation for each hospital included in the NIS. The unit of observation is the *hospital*. There are separate files for each year, 1988-1992.

This file contains data elements for linkage, strata definitions, sample weights, key hospital characteristics, and variables required to calculate variance estimates. When linked with the NIS Inpatient Stay file by the HCUP-3 hospital identifier (HOSPID), the Hospital Weights file provides all data elements required to produce national estimates, including the variance of estimates. The NIS Hospital Weights file also contains the hospital identifier assigned by the AHA, providing a direct link to the AHA Annual Survey of Hospitals, which can be obtained directly from the American Hospital Association.